293. VEHICLE FENDERS.
16
ENGLISH
3365 / 1913

A.D. 1913. Feb. 10. No. 3365.

LEVENSON'S Complete Specification.

2/1913

16

Fig. 1.

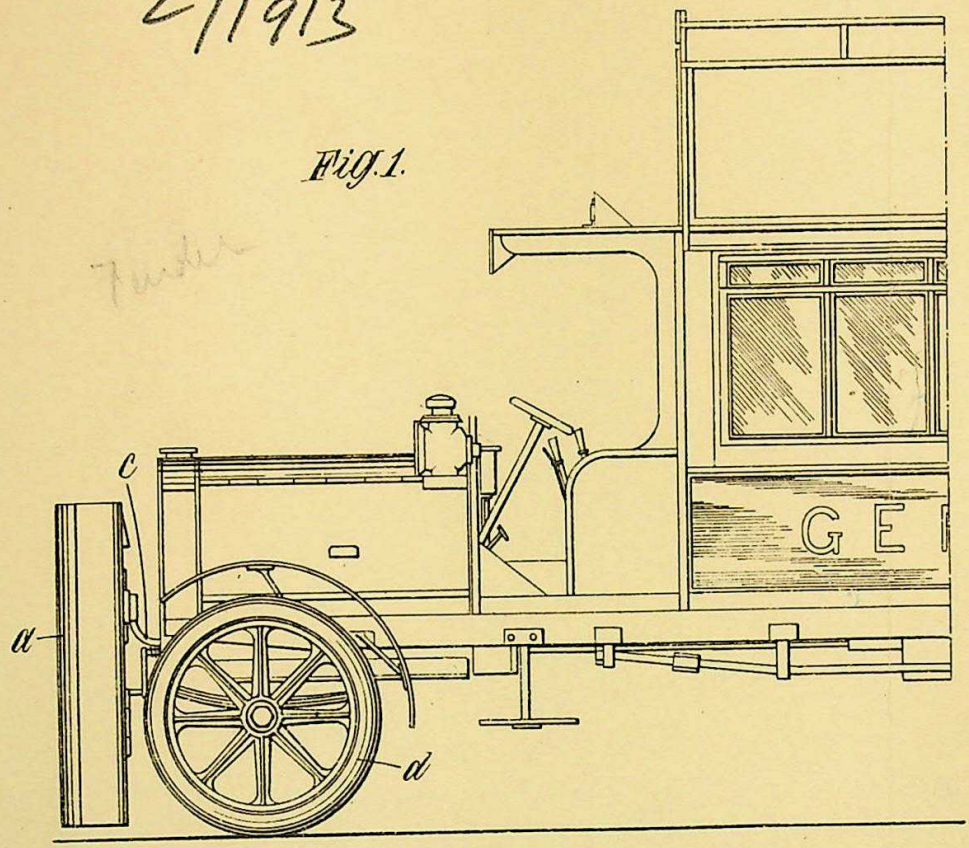


Fig. 3.

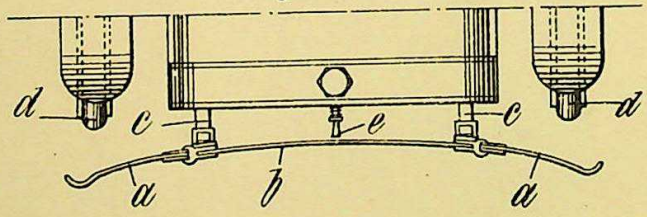


Fig. 4.

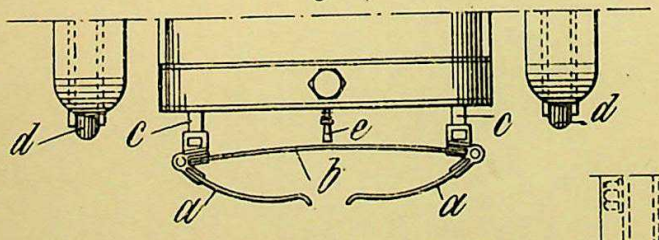
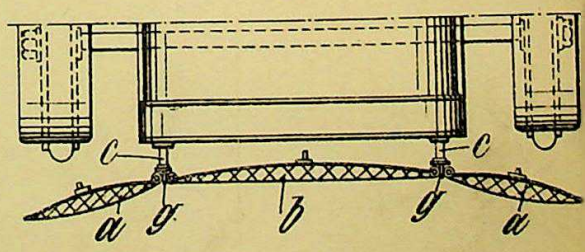


Fig. 6.



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(2 SHEETS)
SHEET 1.

Fig. 2.

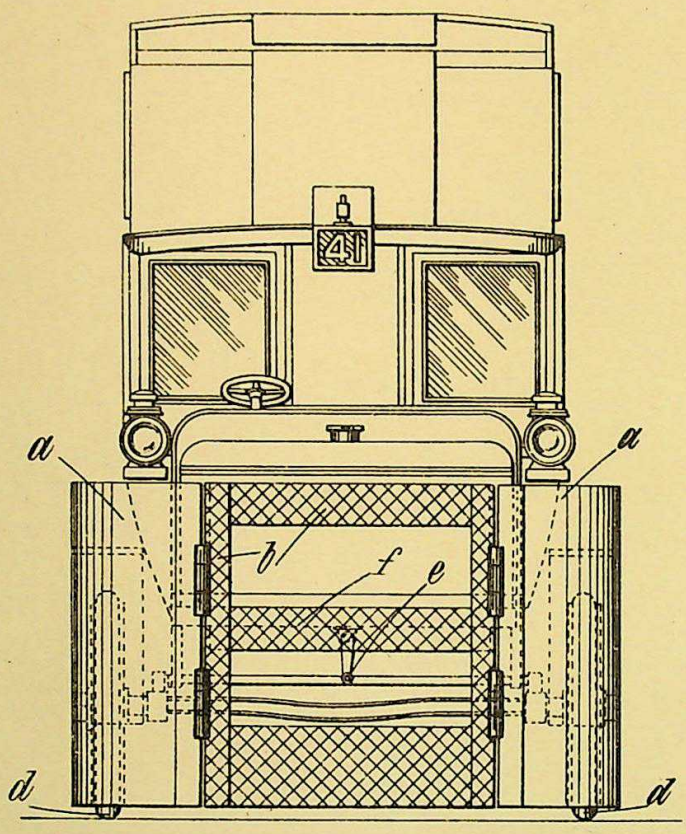
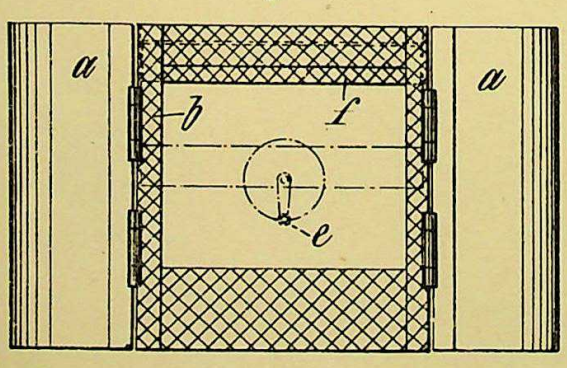


Fig. 5.



Malby & Sons, Photo-Litho.

293. VEHICLE FENDERS.

3365 A.D. 1913

A.D. 1913. FEB. 10. No. 3365.
LEVENSON'S COMPLETE SPECIFICATION.

(2 SHEETS)
SHEET 2.

Fig. 7.

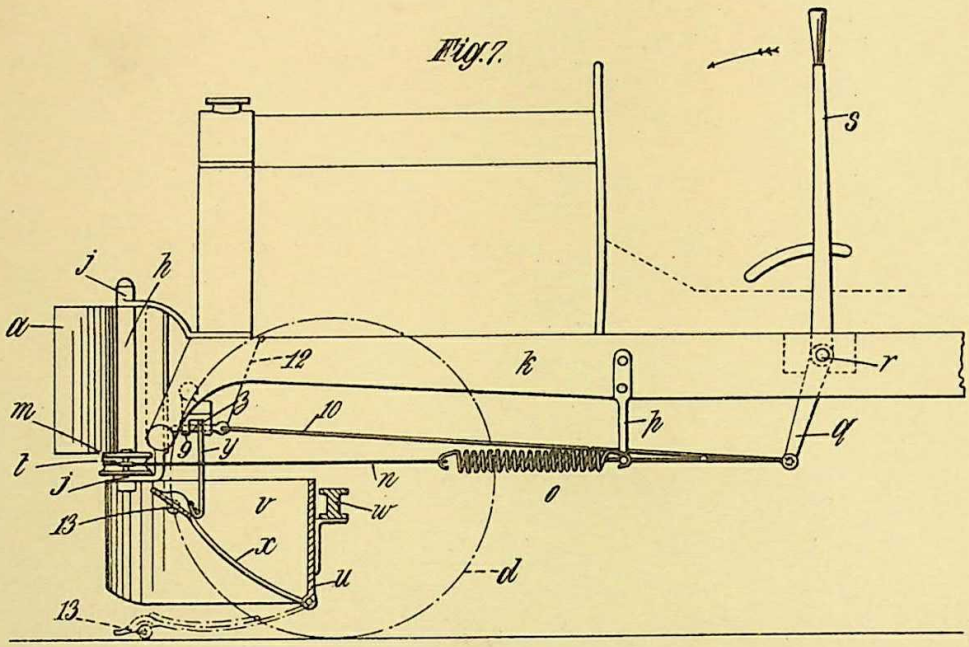
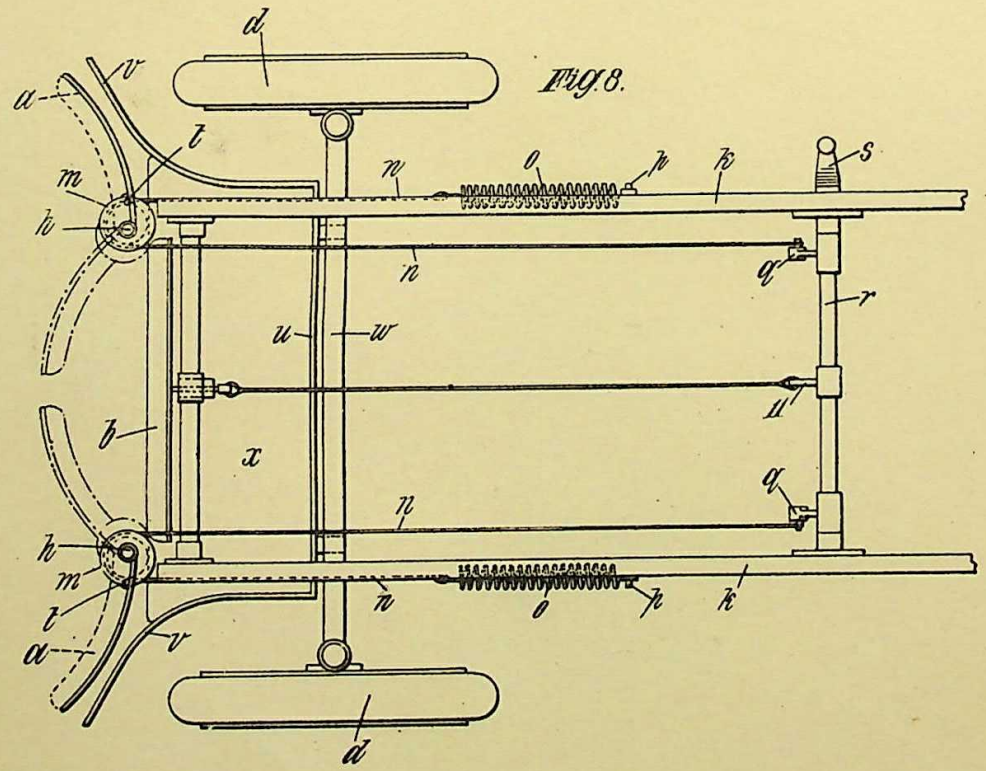


Fig. 8.



Malby & Sons, Photo-Litho.

Fender
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N° 3365 A.D. 1913

DUPLICATE

Date of Application, No. 3365, 10th Feb., 1913
,, ,, No. 11,608, 19th May, 1913
Complete Specification Left, 24th July, 1913
(Section 16 of the Patents and Designs Act, 1907.)
Complete Specification Accepted, 24th Dec., 1913

PROVISIONAL SPECIFICATION.

No. 3365, A.D. 1913.

Life-saving Appliance for use on Mechanically-propelled Vehicles.

I, ERNEST ISAAC LEVENSON, of 30, Ravensdale Road, Stamford Hill, London, N., Clerk, do hereby declare the nature of this invention to be as follows:—

This invention relates to life-saving appliances for use on mechanically-propelled vehicles, and has for its object to prevent injury to pedestrians as a result of being knocked down by collision with the vehicle.

Hitherto the buffer and like devices which have been proposed have served only to push aside a pedestrian who is in the path of the vehicle, but in so doing there is a grave risk of the pedestrian being knocked down and injured by the same or other vehicles or by the force of the collision or fall.

According to this invention a concave padded screen is arranged in front of the vehicle and provided with a pair of laterally extending padded concave wings hinged thereto and adapted to be swung inwards so as to engage and hold against the screen the pedestrian with whom the vehicle collides. In this manner the pedestrian is prevented from being knocked over and injured and held until the vehicle has been brought to rest and the device opened.

In one form of appliance made in accordance with this invention the screen and wings are made of sheet iron and suitably padded and rendered waterproof, the outer edges of the wings being beaded or curled back. The screen is carried on brackets secured to the chassis so that said screen and wings may extend across the vehicle in front of the wheels, the total width of said screen and wings being greater than the greatest width of the vehicle itself, whilst the screen extends to within two or three inches from the ground.

The wings are operated by suitable link or similar mechanism from a hand or foot lever arranged adjacent to the driver's seat, whereby said wings may be simultaneously swung inwards to engage and hold in an upright position the pedestrian with whom the collision takes place, until said lever is operated to swing outwards said wings to release the pedestrian.

In some cases the screen and in other cases the wings also, may be made as open frameworks and suitably padded, and in all cases the screen and wings must be so arranged in front of the vehicle that there is no possibility of the pedestrian being struck by any part of an approaching vehicle except said screen or wings.

Dated this 10th day of February, 1913.

A. M. & WM. CLARK,
Chartered Patent Agents,
53, Chancery Lane, London, W.C.

[*Price 8d.*]

PROVISIONAL SPECIFICATION.

No. 11,608, A.D. 1913.

Life-saving Appliance for use on Mechanically-propelled Vehicles.

I, Ernest Isaac Levenson, of 30, Ravensdale Road, Stamford Hill, London, N., Clerk, do hereby declare the nature of this invention to be as follows:—

This invention relates to life-saving appliances for use on mechanically-propelled vehicles of the kind described in the Specification accompanying my Application No. 3365 of 1913, and has for its object to provide an improved device of lighter construction.

According to my said prior invention, a concave padded screen arranged in front of the vehicle is provided with a pair of laterally extending padded concave wings hinged thereto and adapted to be swung inwards so as to engage and hold against the screen the pedestrian with whom the vehicle collides.

According to the present invention the screen and the wings are each made in the form of light frames of wood, metal or the like in front of and on which are stretched a number of metal wire springs.

The frames, which are quite independent of one another, are preferably mounted on a pair of upright bars of T-section carried on brackets in front of the vehicle, the central screen being substantially half the overall width of the vehicle and the wings each being substantially half the width of the screen. The central screen is preferably less concave than the wings, and all three extend downwards to within about three inches from the ground.

The frames for the wings and the central screen are hinged to the central web of the adjacent T-section upright by readily disconnectible hinges, the central screen being adapted to be swung on its hinges when it is desired to use the starting handle of the motor.

If desired, the screen and wings may be made of very small height and padded with one or more pneumatic tubes.

In order to close the clearance space at the bottom of the device in either case a frame with wire springs may be arranged to slide downwards from behind the central screen when the lateral wings are operated, said sliding guard extending the full width of the vehicle and being provided with castors at its lower edge. By this means the limbs of a pedestrian are prevented from passing underneath the screen and being run over by the wheels of the vehicle.

Dated this 19th day of May, 1913.

A. M. & WM. CLARK,
Chartered Patent Agents,
53, Chancery Lane, London, W.C.

COMPLETE SPECIFICATION.

Life-saving Appliance for use on Mechanically-propelled Vehicles.

I, Ernest Isaac Levenson, of 30, Ravensdale Road, Stamford Hill, London, N., Clerk, do hereby declare the nature of this invention and in what

manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to life-saving appliances for use on mechanically-propelled vehicles, and has for its object to prevent injury to pedestrians as a result of being knocked down by collision with the vehicle.

Hitherto the buffer and like devices which have been proposed have served only to push aside a pedestrian who is in the path of the vehicle, but in so doing there is a grave risk of the pedestrian being knocked down and injured by the same or other vehicles or by the force of the collision or fall.

According to this invention a concave padded screen is arranged in front of the vehicle and provided with a pair of pivotally-mounted laterally-extending padded concave wings adapted to be swung inwards so as to engage and hold against the screen the pedestrian with whom the vehicle collides. In this manner the pedestrian is prevented from being knocked over and injured and held until the vehicle has been brought to rest and the device opened.

Figure 1 is a side elevation of part of a motor omnibus having applied thereto one form of appliance made in accordance with this invention. Figure 2 is a front elevation thereof and Figures 3 and 4 are part plans thereof shewing the wings in the open and closed positions. Figure 5 is a front elevation shewing part of the centre screen raised to permit of the manipulation of the motor starting handle. Figure 6 is a similar view to Figure 3 shewing a modified form of appliance. Figure 7 is a sectional side elevation of a further modification on a larger scale, and Figure 8 a plan thereof, parts being removed for the sake of clearness.

In the form of this invention shewn in Figures 1 to 5 the wings *a a* are made of sheet iron and suitably padded and rendered waterproof, their outer edges being beaded or curled back. The screen *b* is made as an open framework, suitably padded and is carried on brackets *c c* secured to the chassis so that said screen *b* and wings *a a* may extend across the vehicle in front of the wheels *d d* as shewn in Figures 2 and 3, the total width of said screen and wings being the same as the over-all width across the axle-caps, whilst the screen *b* extends to within two or three inches from the ground.

The wings *a a* are operated by suitable mechanism from a hand lever arranged adjacent to the driver's seat as hereinafter explained, whereby said wings may be simultaneously swung inwards as shewn in Figure 4 to engage and hold in an upright position the pedestrian with whom the collision takes place, until said lever is operated to swing outwards said wings to release the pedestrian.

In some cases the wings *a a* may be made as open frameworks and suitably padded, and in all cases the screen *b* and wings *a a* must be so arranged in front of the vehicle that there is no possibility of the pedestrian being struck by any part of such vehicle as it approaches except said screen or wings.

In order to permit of the manipulation of the starting handle *e* of the motor the central transverse bar *f* of the screen *b* is arranged to slide in grooves in said screen so that it may be raised as shewn in Figure 5.

In some cases the screen *b* and the wings *a a* may each be made in the form of light frames of wood, metal or the like in front of and on which are stretched a number of metal wire springs, or to which are secured pneumatic pads as shewn in Figure 6. In this form of the invention the frames of the wings *a a* and screen *b*, which are quite independent of one another, are preferably mounted on a pair of upright bars *g g* of T-section carried on the brackets *c c* in front of the vehicle, the screen *b* being substantially half the overall width of the vehicle across the axle-caps and the wings *a a* each being substantially half the width of the screen *b*. The screen *b* is preferably less concave than the wings *a a*, and all three extend downwards to within about three inches from the ground.

The frames from the wings *a a* and the screen *b* are hinged to the central web

of the adjacent T-section upright *g* by readily disconnectible hinges, the screen *b* being adapted to be swung on its hinges when it is desired to manipulate the starting handle of the motor.

If desired, the screen *b* and wings *a a* may be made of very small height as shewn in Figures 7 and 8, and the clearance space at the bottom of the device may be closed by a frame with wire springs arranged to slide downwards from behind the screen *b* when the lateral wings *a a* are operated, said sliding guard extending the full width of the vehicle and being provided with castors at its lower edge. By this means the limbs of a pedestrian are prevented from passing underneath the screen and being run over by the wheels of the vehicle. It is desirable, however, that the said clearance space should be closed by a scoop as shewn in Figures 7 and 8 which illustrate the preferred form of the invention.

Each wing *a* is mounted on a spindle *h* pivoted between brackets *j j* secured to the chassis *k* and carrying eccentrically a grooved pulley *m*. Passing around each pulley *m* is a wire rope *n* connected at one end with a spring *o* attached to an arm *p* secured to the chassis *k* and at the other end with an arm *q* secured to and adapted to be rocked with a cross-shaft *r* carrying a hand lever *s* adjacent to the driver's seat. In order to avoid slip and to rotate the spindles *h* positively each wire rope *n* is secured to its respective pulley *m* by a pin *t* passing through said pulley and through an eye in said rope. The springs *o o* normally hold the wings *a a* in the open position as shewn in Figure 8, it being understood that when the hand lever *s* is moved in the direction of the arrow, Figure 7, the wire ropes *n n* are pulled against the action of said springs and cause the wings *a a* to be moved to the "closed" position indicated in dotted lines in Figure 8. Owing to the eccentricity of the pulleys *m m* on the spindles *h h* the wings *a a* are first swung inwards rapidly, the leverage being comparatively small; on further rotation of the pulleys, however, the leverage increases until when the wings *a a* are in the "closed" position the leverage will be such that the driver of the vehicle is enabled to hold or support any person enfolded by said wings.

The padding of the wings *a a* and screen *b* should be so arranged as to project in front of the pulleys *m*, but for the sake of clearness this is not shewn in the drawings.

The screen *b* may be made to slide upwards or to be moved on hinges as hereinbefore set forth in order to permit access being obtained to the starting handle of the motor. At the clearance below the screen a scoop guard is provided to catch and retain a person who has fallen down in front of the vehicle. The back *u* and sides *v v* of this guard are secured to the front axle *w*, the sides being splayed outwards to project in front of the wheels *d d* and so placed as to permit of the angular movement of said wheels in steering the vehicle. The bottom *x* of the guard is hinged to the back *u* and is normally held up in the position shewn in Figure 7 by a flexible tongue *y* of leather or the like secured at one end to said bottom *x* and through an eye in the other end of which passes a draw pin *z* adapted to slide in lugs 9, 9 and to be withdrawn therefrom when the cross shaft *r* is rocked by a cord 10 attached to an arm 11 on said cross shaft. In order to prevent the draw pin *z* from falling into the scoop it is suspended by a cord 12 from the chassis *k*, or it may be so arranged that it is not entirely withdrawn from one lug 9. The bottom *x* near the leading edge thereof is pressed up so as to form a ridge to prevent a person picked up thereby from falling out again and said pressed-up portion also serves as a housing for rubber rollers 13 or the like. At the leading edge of said bottom *x* is preferably arranged a thin strip of indiarubber adapted to contact with the ground when said bottom is allowed to fall, said strip of rubber closing the gap between said bottom and the ground.

It will be seen, therefore, that the bottom *x* of the scoop is normally held up clear of the road, but when the hand lever *s* is operated to close the wings *a a*

the pin *z* is withdrawn and the bottom *x* of the scoop falls to the position shewn in dotted lines, the rollers 13 resting on the ground and the tongue *y* lying flat on said bottom.

It is to be observed that the hand lever *s* is so arranged both in position and direction of operation that as soon as a driver has applied the hand brake by pulling back the hand lever thereof in the usual manner, the hand lever *s* of the life-saving appliance is so conveniently situated that it may be immediately grasped and pushed forward to operate the appliance.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A life-saving appliance for use on mechanically-propelled vehicles comprising a concave padded screen arranged in front of the vehicle and provided with a pair of pivotally-mounted laterally-extending padded concave wings adapted to be swung inwards so as to engage and hold against the screen the pedestrian with whom the vehicle collides.

2. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 1, wherein the screen is made as an open framework part of which is slidable in grooves, substantially as and for the purpose set forth.

3. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 1, wherein the wings and screen are mounted on upright bars of T-section, substantially as set forth.

4. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 1, wherein the wings and screen are of small height and the clearance below said wings and screen is protected by a slidable screen or by a scoop guard.

5. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 1, wherein each wing is mounted on a pivoted spindle carrying eccentrically a grooved pulley around which passes a wire rope adapted to be pulled against spring action, substantially as and for the purpose set forth.

6. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 5, wherein the wire ropes are secured to the respective pulleys and are connected with arms mounted on a cross shaft which is adapted to be rocked by a hand lever, substantially as set forth.

7. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 4, 5 or 6, provided with a scoop guard the bottom of which is hinged and normally held out of contact with the ground, substantially as set forth.

8. A life-saving appliance for use on mechanically-propelled vehicles as claimed in Claim 7, wherein the means for normally holding the bottom of the scoop guard are so arranged that said bottom is released when the wings of the appliance are operated, substantially as set forth.

9. A life-saving appliance for use on mechanically-propelled vehicles constructed, arranged and adapted for operation substantially in the manner and for the purposes hereinbefore set forth with reference to the accompanying drawings.

Dated this 24th day of July, 1913.

A. M. & WM. CLARK,
Chartered Patent Agents,
53, Chancery Lane, London, W.C.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1914.